

Appl. No. : **10/628,847**
Filed : **July 28, 2003**

REMARKS

In response to the final Office Action mailed January 30, 2007, Applicants respectfully request the Examiner to reconsider the above-captioned Application in view of the foregoing amendments and the following remarks.

Summary of the Office Action

In the January 30, 2007 Office Action, Claims 35, 37 and 38-50 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Claims 14-21, 34 and 38-50 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,769,767 issued to Swab et al. in view of U.S. Patent No. 5,654,786 issued to Bylander (hereinafter, "Swab in view of Bylander"). Further, Claims 14-33, 34 and 36-50 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Swab, in view of U.S. Patent No. 4,149,780, issued to Young (hereinafter, "Swab in view of Young").

Summary of the Amendment

By this amendment, Applicants respond to the Examiner's comments and rejections made in the January 30, 2007 Office Action. Upon entry of the present Amendment, Applicants will have amended Claims 14, 17, and 38. Further, Applicants will have added new Claims 51-54. Therefore, Claims 14-54 currently remain pending. Applicants respectfully submit that the present Application is now in condition for allowance based on the following remarks.

Traversal of Rejection under 35 U.S.C. § 112, First Paragraph

In the Office Action, the Examiner rejected Claims 35, 37 and 38-50 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. The Examiner indicated that "a printed circuit board supported by the frame, wherein an electrical conduit extends from the speaker through the speaker support and frame to the printed circuit board when the eyeglass is worn by the user," as recited in Claims 35 and 37, is not supported by the specification as filed. Further, the Examiner indicated that "at least one lens comprising at least one variable light attenuation assembly configured to change its attenuation of visible light in accordance with an electronic control signal," as recited in Claim 38, is not supported by the

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specification as filed. The Examiner also concluded that "the electronic control signal is provided to control variable light attenuation of the lens from the interface," as recited in Claim 43, is not supported by the specification as filed.

With regard to the above language of Claims 35 and 37, Applicants respectfully submit that at least paragraphs 110 and 116-118, as well as Figures 3E, 3J, and 3M describe embodiments with "a printed circuit board supported by the frame, wherein an electrical conduit extends from the speaker through the speaker support and frame to the printed circuit board when the eyeglass is worn by the user." Therefore, this language of Claims 35 and 37 is supported by the specification, and Applicants respectfully request that the Examiner withdraw his rejection of Claims 35 and 37 under Section 112.

With regard to the above language of Claims 38 and 43, Applicants respectfully submit that paragraphs 55-57, 122 and describe embodiments with "at least one lens comprising at least one variable light attenuation assembly configured to change its attenuation of visible light in accordance with an electronic control signal" and "the electronic control signal is provided to control variable light attenuation of the lens from the interface." For example, as noted in paragraph 57:

More preferably, the lenses 44, 46 comprise a dichroic dye guest-host device configured to provide variable light attenuation. For example, the lenses 44, 46 can comprise spaced substrates coated with a conducting layer, an alignment layer, and preferably a passivation layer. Disposed between the substrates is a guest-host solution which comprises a host material and a light-absorbing dichroic dye guest. A power circuit (not shown) can be supported by the frame 42. The power circuit is provided with a power supply connected to the conducting layers. Adjustment of the power supply alters the orientation of the host material which in turn alters the orientation of the dichroic dye. Light is absorbed by the dichroic dye, depending upon its orientation, and thus provides variable light attenuation.

Applicants' Application, paragraph 57 (emphasis added).

As noted above, the power supply, which is an electric control signal, can be adjusted to alter the orientation of the host material which in turn alters the orientation of the dichroic dye. Applicants thus respectfully submit that one skilled in the art would understand that the inventors had possession of the recited subject matter of Claims 38 and 43. Therefore, Applicants also

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respectfully request that the Examiner withdraw his rejection of Claims 38 and 43 under Section 112.

For the above reasons, Applicants respectfully request that the Examiner withdraw the rejection of Claims 35, 37, and 38-50 under Section 112, first paragraph.

Traversal of Rejections under 35 U.S.C. § 103(a)

Claims 14-21, 34 and 38-50 stand rejected under Section 103(a) as being unpatentable over Swab in view of Bylander. Additionally, Claims 14-34 and 36-50 stand rejected under Section 103(a) as being unpatentable over Swab in view of Young. Applicants respectfully traverse these rejections and submit that these claims are patentable over the cited art because the proposed combinations are improper and also fail to teach each and every feature of the claims.

A. *None of Swab, Bylander, Young, or Skill in the Art at the Time of the Invention Provides any Justification for the Examiner's Proposed Combinations.*

Applicants respectfully submit that neither the combination of Swab and Bylander nor the combination of Swab and Young justify an obviousness rejection of any of Claims 14-34 and 36-50. As discussed below, these references do not provide any apparent reason to combine the components recited in these claims.

Firstly, independent Claims 14, 22, and 38 each recite features that are not collectively disclosed in any of the cited references. For example, independent Claim 14 recites, *inter alia*, an eyeglass comprising "at least one interactive electronic device supported by the frame; and at least one lens configured to have variable light attenuation supported by the frame." In addition, independent Claim 22 recites, *inter alia*, an eyeglass comprising "an interactive audio device, at least a first lens," and "a frame supporting the interactive audio device, the frame including at least a first lens support . . . being configured to allow the first lens to pivot relative to the frame between at least first and second positions, wherein the lens provides a first magnitude of light attenuation when the first lens is in a first position and less light attenuation when the first lens is pivoted to the second position." Further, independent Claim 38 recites, *inter alia*, an eyeglass comprising "at least one lens comprising at least one variable light attenuation assembly configured to change its attenuation of visible light in accordance with an electronic control

signal,” and “an interface supported by the frame, wherein the interface is configured to receive the transceiver output signal and provide a speaker signal to at least the first speaker.”

However, as admitted by the Examiner, Swab fails to teach either that the lens can be configured to have variable light attenuation (as in independent Claims 14, 22, and 38) or that the first lens can pivot relative to the frame between at least first and second positions with the lens providing a first magnitude of light attenuation when the first lens is in a first position and less light attenuation when the first lens is pivoted to the second position (as in independent Claim 22).

It is the Examiner’s position that it would have been obvious to combine those missing features as taught by Bylander and Young with Swab. Applicants submit that such combinations are improper for at least the following reasons.

1. *Neither Swab nor Bylander Provides any Justification for the Examiner’s Proposed Combination to Reject Claims 14-21, 34, and 38-50.*

It is the Examiner’s position that Bylander discloses a “lens 50 configured to have variable light attenuation,” and that Bylander’s teachings could be combined with those of Swab to reject these claims because “both are from the same field of endeavor, the purpose of controlling the amount of light that is transmitted through the lens as disclosed by Bylander would have been recognized as an art pertinent art of Swab et al.”

However, even though Swab and Bylander both relate to eyewear, neither Swab nor Bylander provides any reason for creating an eyeglass that includes both variable light attenuation *and* interactive electronics. In fact, Swab and Bylander clearly teach away from such a combination.

Swab teaches eyewear that can be used to form a wireless ad hoc network with devices such as a computer, bracelet, and telephone. *See* Swab, col. 3, line 66-col. 4, line 11. Swab indicates that the eyewear is intended to be “low-cost, small in size, and [have] a low power consumption.” *Id.* at col. 1, lines 63-64 (emphasis added). It is notable that Swab never once describes the lenses used in its eyewear, and never even uses the word “lens”! Indeed, Swab’s closest reference to anything light-related is made in the Background of the Invention section, where Swab refers to a prior art personal display device as having the “shape of sunglasses.” *Id.*

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at col. 1, lines 46-48. Applicants submit that Swab's teachings are completely focused only on low-cost, low power wireless communication eyewear that can form an ad hoc wireless network with other electronic devices.

In contrast, Bylander is entirely focused on controlling the optical transmissivity of eyewear to create a medically-significant result. For example, Bylander indicates that

Continuous control of optical transmissivity across a broad range of magnitudes is particularly desirable in many medical applications such as diagnosis and treatment of retinal disease, visual field abnormalities known a[s] scotomas, optic neuropathy, macular degeneration, and the like. Diagnosis of these conditions can be problematic using uncontrolled ambient light since the magnitude of the symptoms of these diseases can vary with ambient light levels.

For patients suffering from retinal diseases, sudden changes in ambient light levels, such as emerging from a dimly lit room into a bright sunny day, and vice versa, can cause serious problems and momentary blindness. It would be desirable to maintain these patients in a partially dark adapted state. This partially dark adapted state would involve maintaining a constant light level at the patients eyes despite variations in ambient light levels.

Bylander, col. 1, lines 19-35 (emphasis added).

Thus, Bylander teaches lens structures that are configured to continuously control the optical transmissivity of light passing therethrough independently of ambient light levels. *See id.* at col. 1. Additionally, the lens structures taught by Bylander require additional power in order to vary the light transmissivity of the lenses.

Applicants respectfully submit that while Swab and Bylander are both related to eyewear, common sense indicates that it would not have been obvious at the time of filing the present Application to combine their teachings because there was no reason to combine the wireless networking capabilities of Swab with the medically-significant continuous optical transmissivity controls of Bylander. As mentioned above, Swab is entirely focused on creating a wireless networking tool while Bylander is concerned entirely with creating a medical tool. Indeed, Bylander's electronic control system includes so many components (see Bylander, Figures. 6-9) that it is not clear whether Bylander's electronics could be physically combined into the limited volume provided by Swab's eyewear. In addition, the Examiner has not presented any evidence or reasons justifying the combination that either refutes the above-discussed express teachings of Swab and Bylander or that affirmatively teach that such features would be advantageously combinable into a single eyewear product.

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Further, it would be common sense to one of skill that the combination is also improper because Swab teaches away from the combination. Indeed, Swab teaches that the eyewear should be low-cost and low-power, and that a combination of Swab's wireless communication tool with the medical instrument disclosed in Bylander would greatly increase the cost and required power supply and output. Moreover, Bylander's primary embodiment uses a ferro-electric material that requires a "high-voltage" (see Bylander, col. 2 and col. 4, lines 27-63), and one of skill in the art would not sensibly combine Swab and Bylander because the result would be a high-powered, expensive eyewear product. Likewise, Bylander teaches that even with the lower-power alternative embodiment, the electrical field would need constant power in order to allow any light to pass through the lens; otherwise, the lens is rendered opaque. See Bylander at col. 3, lines 14-32. Thus, combining any disclosed embodiment of Bylander with Swab would require either a *high-voltage* or a *constant power supply*. Applicants submit that Swab clearly teaches away from such a combination because it would presumably create a high-cost, high power wireless communication eyewear product.

Therefore, Applicants submit that the combination of Swab and Bylander is improper and, for at least the above reasons, the rejection of Claims 14-21, 34 and 38-50 should be withdrawn.

2. *Neither Swab nor Young Provides any Justification for the Examiner's Proposed Combination to Reject Claims 14-34 and 36-50.*

With regard to this rejection, it is the Examiner's position that Young discloses "the first lens to pivot relative to the frame between at least first and second positions, wherein the lens provides a first magnitude of light attenuation when the first lens is in a first position and less light attenuation when the first lens is pivoted to the second position." The Examiner also stated that because Swab and Young are from the same field of endeavor, "the purpose of controlling the amount of light that is transmitted through the lens as disclosed by Young would have been recognized as an art pertinent art of Swab et al."

Nevertheless, even though Swab and Young both relate to eyewear, neither Swab nor Young provides any apparent reason for creating an eyeglass that includes both interactive electronics and variable light attenuation, and the Examiner has not provided any relevant

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teachings that evidence that one of skill in the art at the time would sensibly make such a combination.

As noted above, Swab is completely focused only on low-cost, low power wireless communication eyewear that can form an ad hoc wireless network with other electronic devices. Swab never once contemplates or suggests the use of any specific type of lens.

In contrast, Young teaches variable density spectacles having a pair of superposed iodine stained light polarizing elements. Young teaches that one of the polarizing elements can be rotatable through an arc of less than 90 degrees to provide changes in the light transmitting functionality of the superposed elements. Young is dedicated to the precise formulations and configurations of the lens, and does not once suggest that electronics can be used with its disclosed spectacles.

Thus, just as Swab is focused only on a wireless communication tool, Young is focused only on a rotatable lens for varying the transmissivity of light therethrough. Nothing in Young teaches or suggests that such a system should or could be combined with eyewear that has any electronic systems, or that one of skill in the art would sensibly combine these teachings. Nor has the Examiner presented any evidence or reason otherwise justifying the combination of Swab and Young to indicate that such features could be advantageously or sensibly combined into a single eyewear product.

Therefore, Applicants submit that the combination of Swab and Young is improper and, for at least the above reasons, the rejection of Claims 14-34 and 36-50 should be withdrawn.

B. None of Swab, Bylander, or Young Teach all of the Features of Independent Claims 14, 22 and 38.

Applicants respectfully submit that none of Swab, Bylander, or Young individually or collectively discloses or teaches each and every feature recited in independent Claims 14, 22, and 38. Therefore, Applicants respectfully request that the Examiner withdraw his rejection of these claims under Section 103(a), and the claims depending therefrom, and indicate that they are allowable over the art of record.

As currently presented, Claim 14 recites, *inter alia*, "at least one speaker support, wherein the at least one speaker support is coupled to the frame with a coupling; and a speaker supported

by the at least one speaker support, wherein the speaker support is configured such that the speaker may be pivoted over a predetermined distance with respect to the frame to position the speaker adjacent the user's ear when worn by the user" (emphasis added). Further, as also presented, Claim 22 recites, *inter alia*, "at least one speaker supported by the frame with a speaker support, wherein the speaker support is configured to allow the speaker to be pivoted over a predetermined distance with respect to the frame to position the speaker adjacent the user's ear when worn by the user" (emphasis added). Finally, Claim 38 now recites, *inter alia*, "at least first and second speakers supported by the frame with respective first and second speaker supports, wherein the respective ones of the first and second speaker supports are configured to allow the first speaker to be pivoted over a predetermined distance with respect to the frame to position the first speaker adjacent to a first ear of the user and the second speaker to be pivoted over a predetermined distance with respect to the frame to position the second speaker adjacent to a second ear of the user" (emphasis added).

It is first noted that none of Swab, Bylander, or Young teach a coupling or speaker support that is "configured such that the speaker may be pivoted over a predetermined distance with respect to the frame," as recited in each of independent Claims 14, 22, and 38. Indeed, Bylander and Young are devoid of any discussion of the use of speakers or related equipment in their eyewear products. Further, as discussed below, Swab also fails to disclose the above-noted features of these claims.

Swab discusses and illustrates an eyewear 12 that includes speakers that are "mounted on each temple of the eyewear 12, i.e., a left speaker 60 is mounted on the left temple 19 and a right speaker 62 is mounted on the right temple 20. In one embodiment, Swab indicates that only one speaker (left speaker 60 in FIG. 4) is connected directly to the transceiver 18, the other speaker (right speaker 62 in FIG. 4) is then connected to the first speaker through the electrically conductive connection of the two temples and the frame." Swab, col. 6, lines 22-30. In another embodiment, Swab discloses that the "left speaker 60 [is] removably mounted on the left temple 19 and the right speaker 62 [is] removably mounted on the right temple 20. Left temple 19, frame 24 and right temple 20 form an electrically conductive link connecting the right speaker 62 to the left speaker 60." *Id.* at col. 6, lines 39-44.

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Nevertheless, nothing in Swab, including Figures 8-10, teaches a coupling or speaker support that is "configured such that the speaker may be pivoted over a predetermined distance with respect to the frame" (emphasis added), as recited in Claims 14, 22, and 38. Therefore, Swab is devoid of any teaching or disclosure of the above-noted features recited in the claims and cannot support a Section 103(a) rejection.

Therefore, because none of Swab, Bylander, or Young teaches at least the above-mentioned features of Claims 14, 22, and 38, these references do not teach each and every feature recited in the claims. Thus, Applicants respectfully submit that the Examiner's rejections under Section 103(a) based on the combinations of Swab in view Bylander and Swab in view of Young are improper and should be withdrawn.

New Claims 51-54

Applicants hereby submit new Claims 51-54 for consideration. These claims depend from independent Claims 14 and 22, and should be allowable for at least the reason that these claim depends from allowable base claims. These claims draw support from the specification on pages 20, 30, 33, 43-44, and 47, and therefore, Applicants submit that these claims fully comply with Section 112. Applicants therefore respectfully request that the Examiner indicate allowance of these claims.

CONCLUSION

Applicants respectfully submit that the above rejections and objections have been overcome and that the present Application is now in condition for allowance. Therefore, Applicants respectfully request that the Examiner indicate that Claims 14-54 are now acceptable and that Claims 14-54 are allowed. Accordingly, early issuance of a Notice of Allowance is most earnestly solicited.

Applicants respectfully submit that the claims are in condition for allowance in view of the above remarks. Any remarks in support of patentability of one claim, however, should not be imputed to any other claim, even if similar terminology is used. Additionally, any remarks referring to only a portion of a claim should not be understood to base patentability on that portion; rather, patentability must rest on each claim taken as a whole. Applicants respectfully

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traverse each of the Examiner's rejections and each of the Examiner's assertions regarding what the prior art shows or teaches, even if not expressly discussed herein. Although amendments have been made, no acquiescence or estoppel is or should be implied thereby. Rather, the amendments are made only to expedite prosecution of the present Application, and without prejudice to presentation or assertion, in the future, of claims on the subject matter affected thereby. Applicants also have not presented arguments concerning whether the applied references can be properly combined in view of, among other things, the clearly missing elements noted above, and Applicants reserve the right to later contest whether a proper motivation and suggestion exists to combine these references.

The undersigned has made a good faith effort to respond to all of the rejections in the case and to place the claim and drawings in condition for immediate allowance. Nevertheless, if any undeveloped issues remain or if any issues require clarification, the Examiner is respectfully requested to call Applicants' attorney in order to resolve such issue promptly.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

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